

Basic principles

± 10 degrees

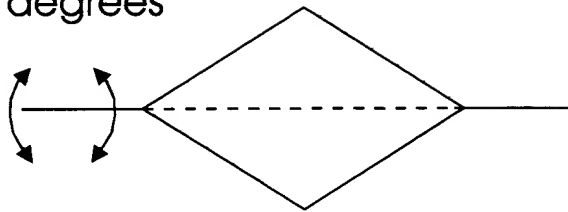


Fig. 1

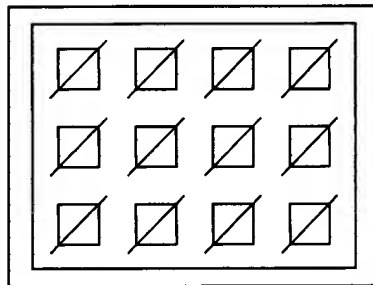


Fig. 2

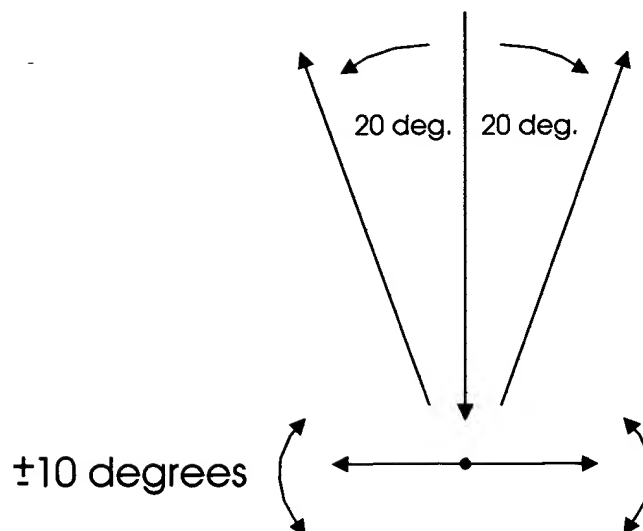


Fig. 3

Figure 1 consists of 12 histograms arranged in a single column. Each histogram represents the distribution of the number of non-zero elements in the vector x for a specific value of n . The values of n are 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, and 120. The x-axis for each histogram is labeled 'Number of non-zero elements' and ranges from 0 to n . The y-axis is labeled 'Frequency' and ranges from 0 to 10. The histograms show that as n increases, the distribution of non-zero elements shifts to the right, with the peak frequency increasing and the distribution becoming more spread out.



Mirror HMD - Single Stage

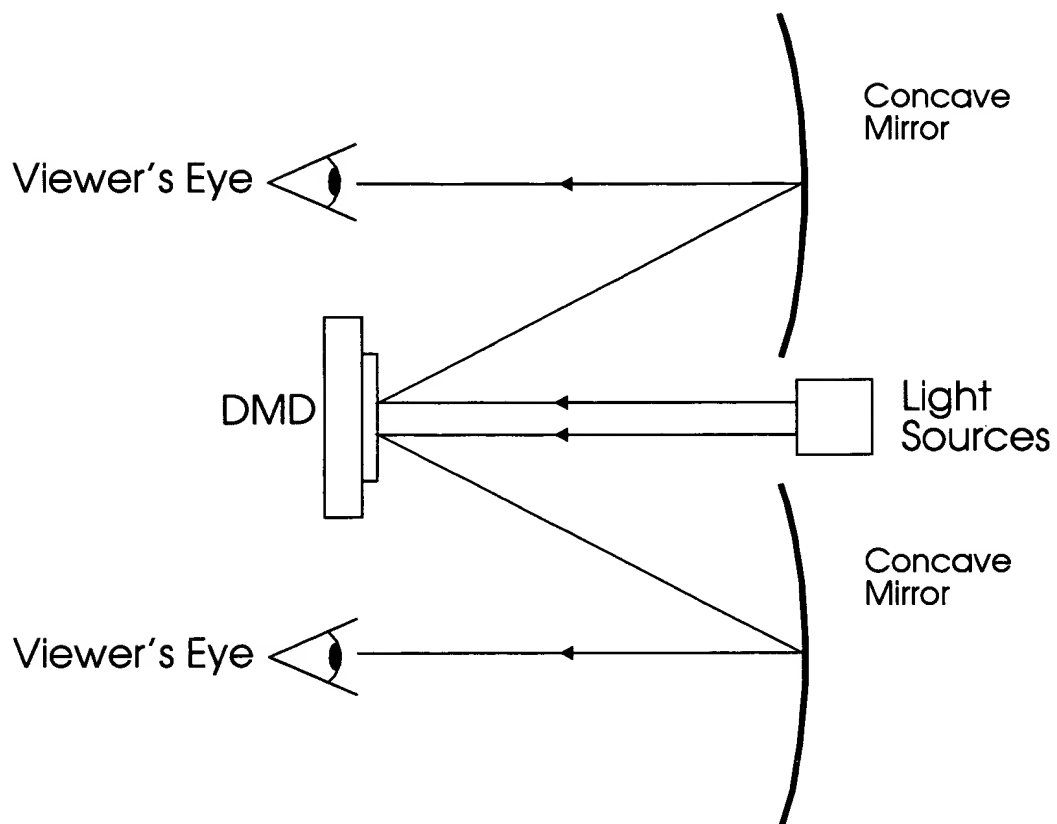


Fig. 7

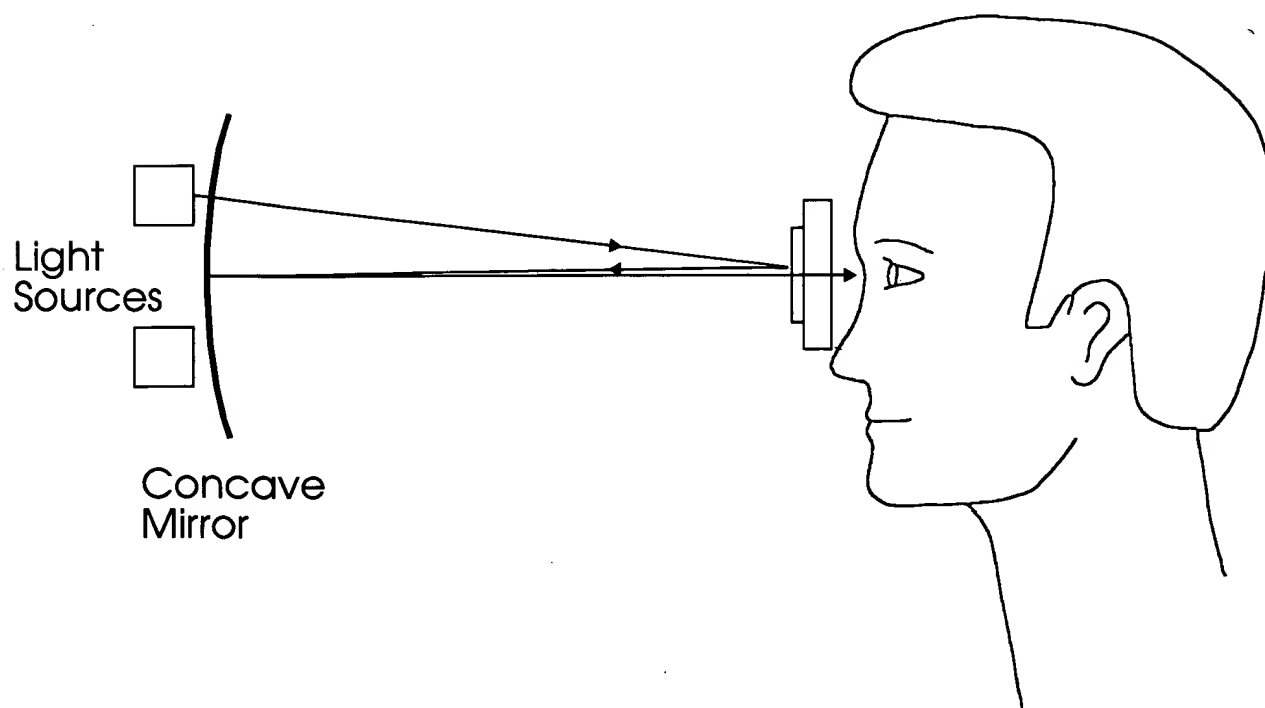


Fig. 8

Mirror HMD - Two Stage

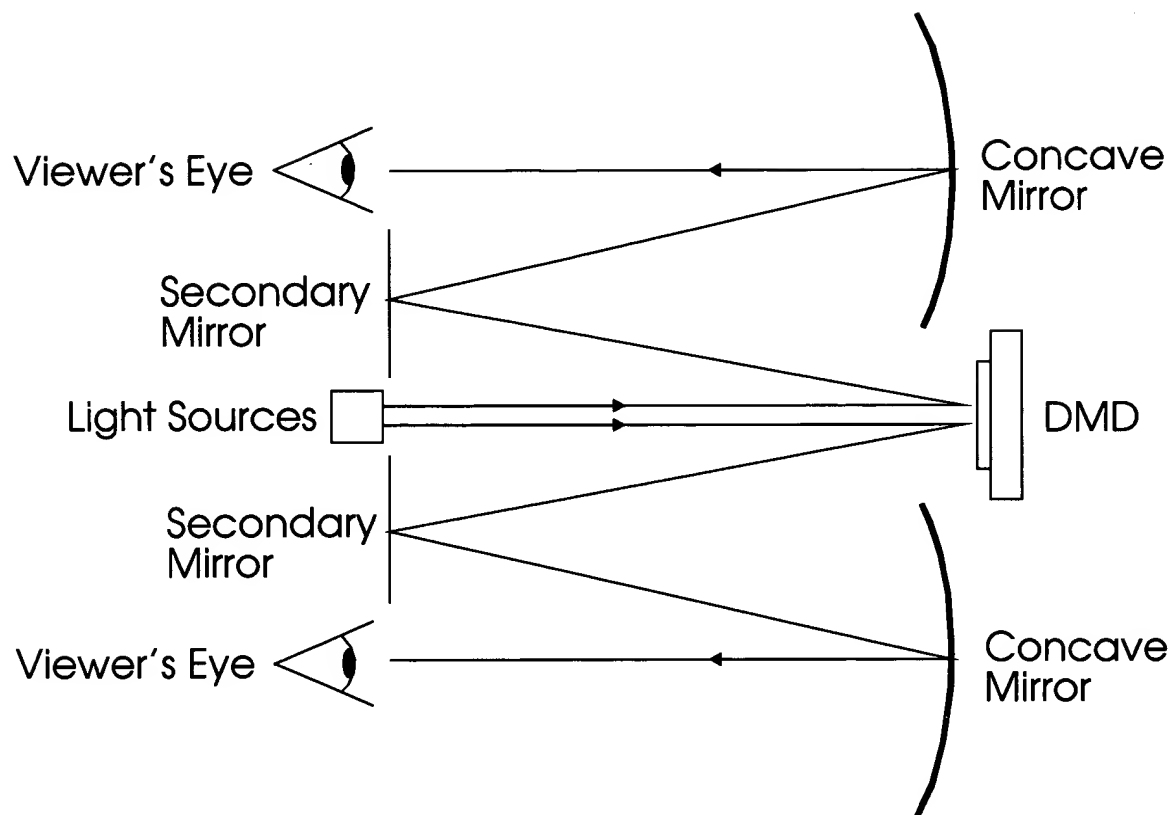


Fig. 9

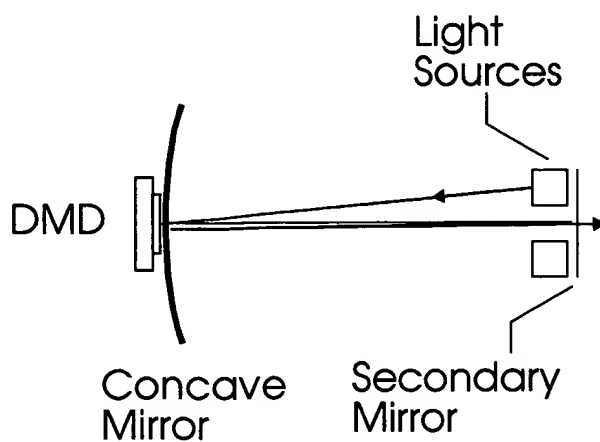


Fig. 10

Enhancements

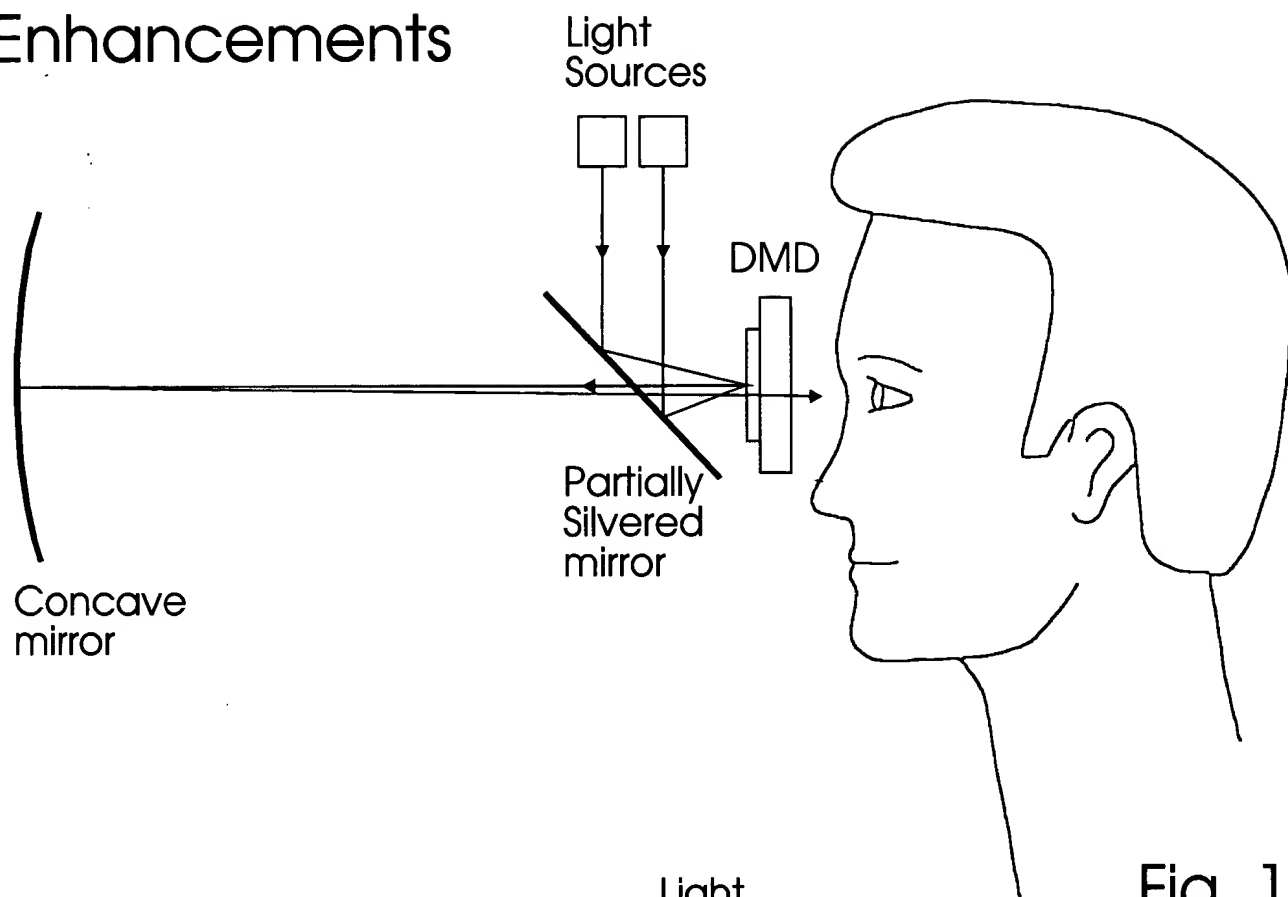


Fig. 11

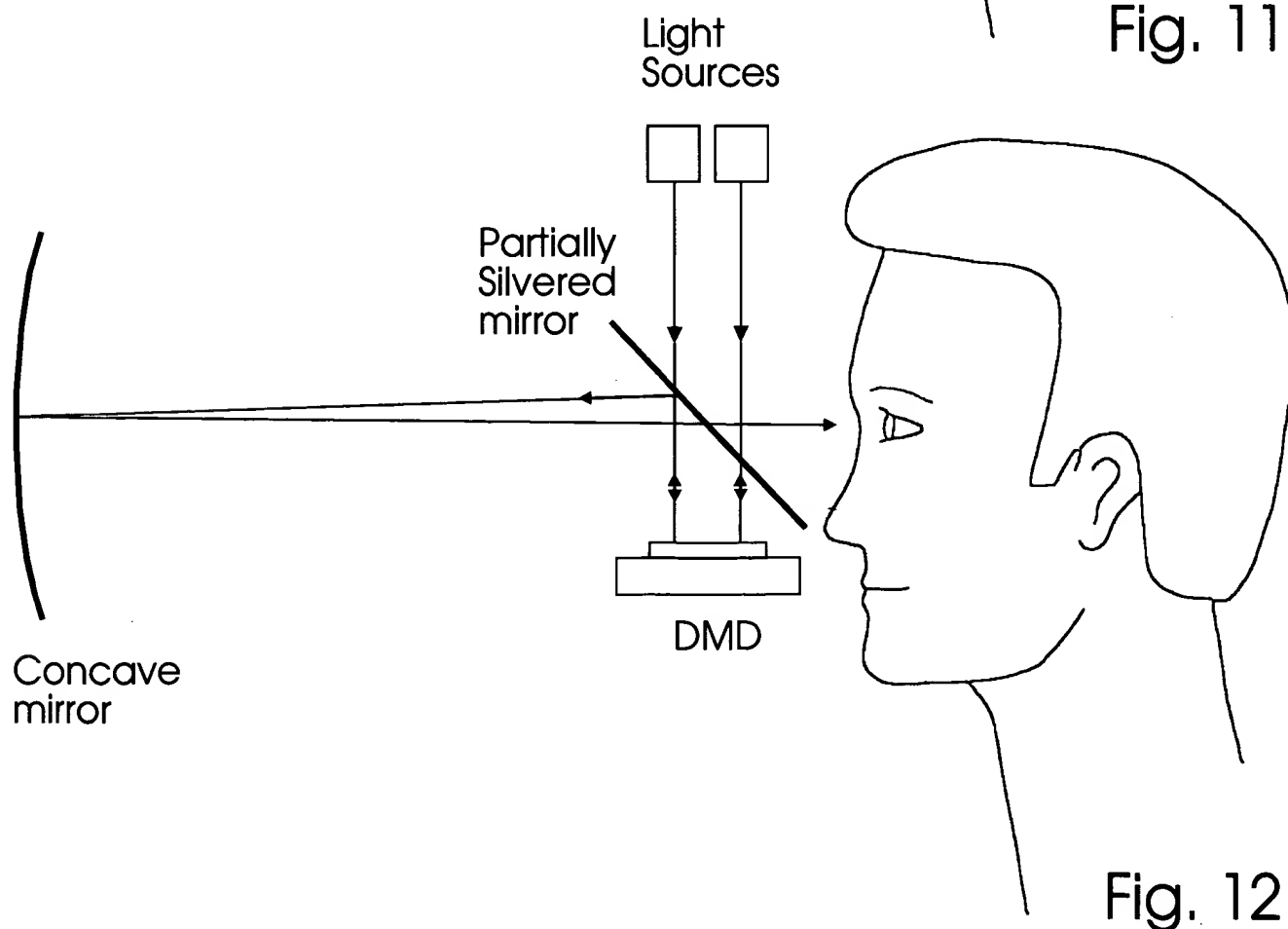


Fig. 12

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Enhancements

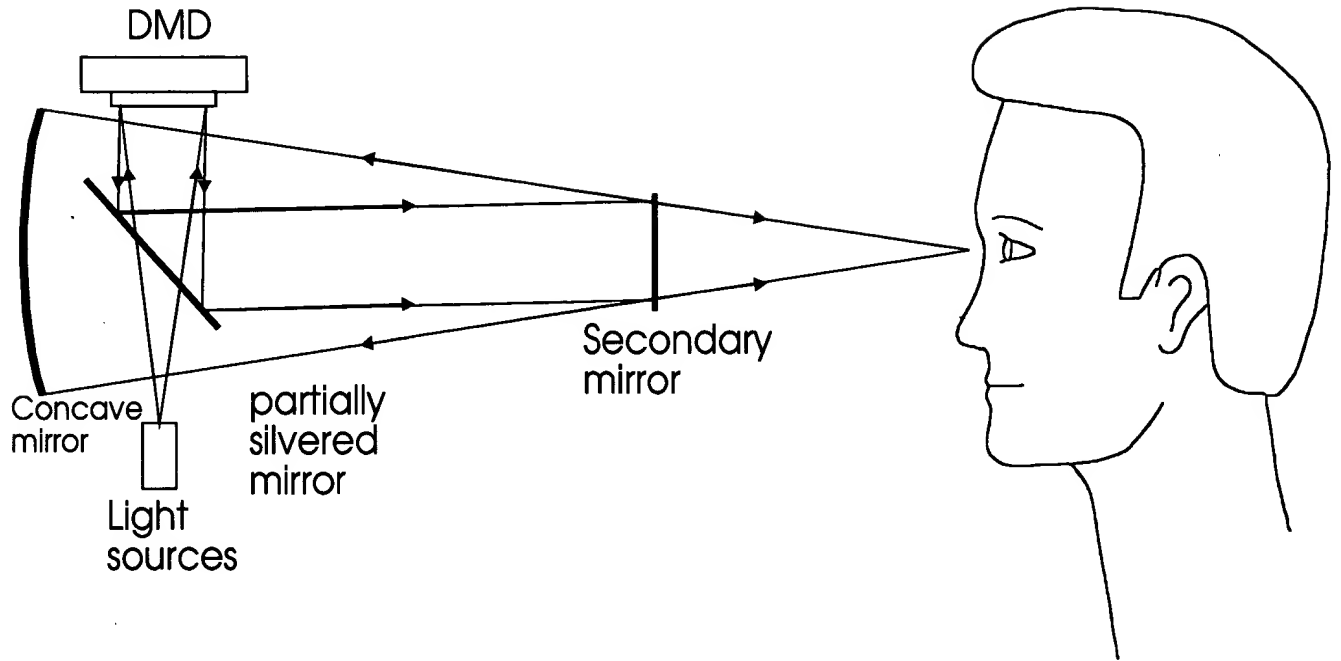


Fig. 13

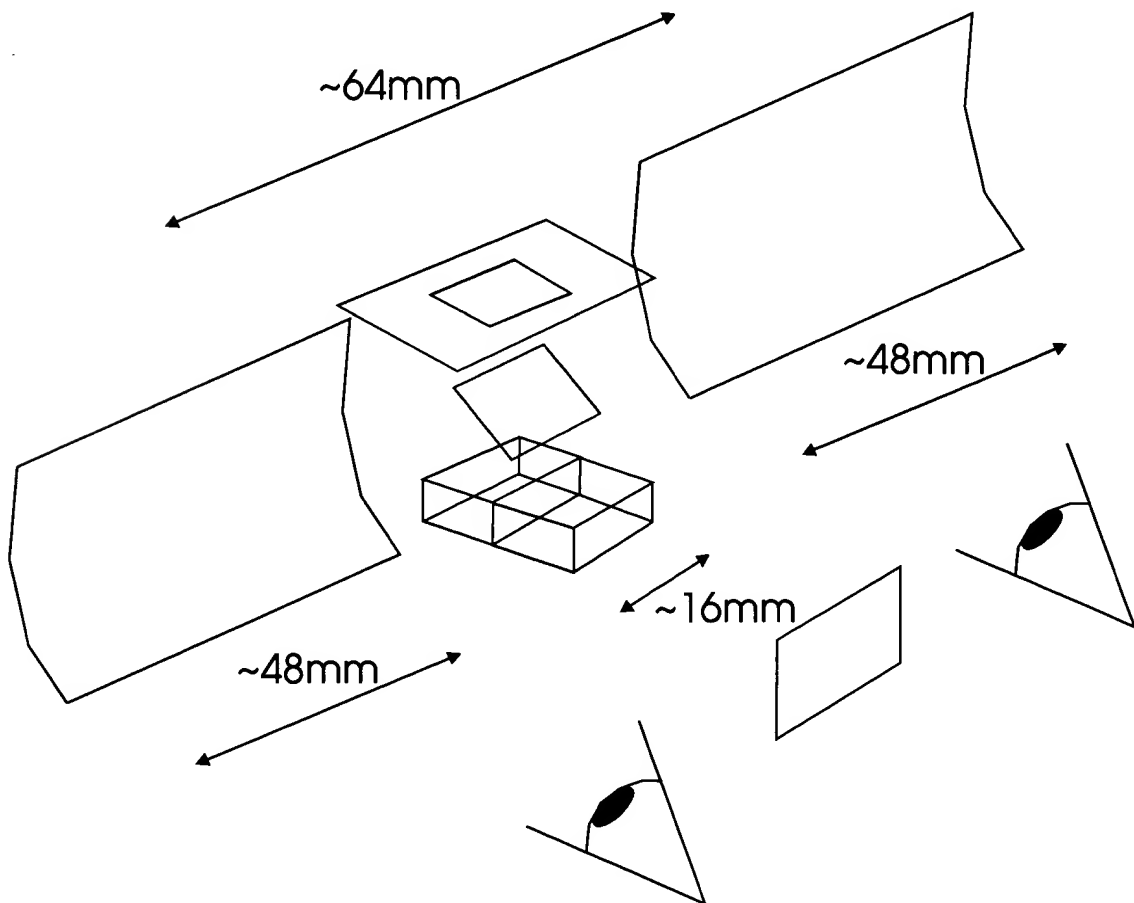
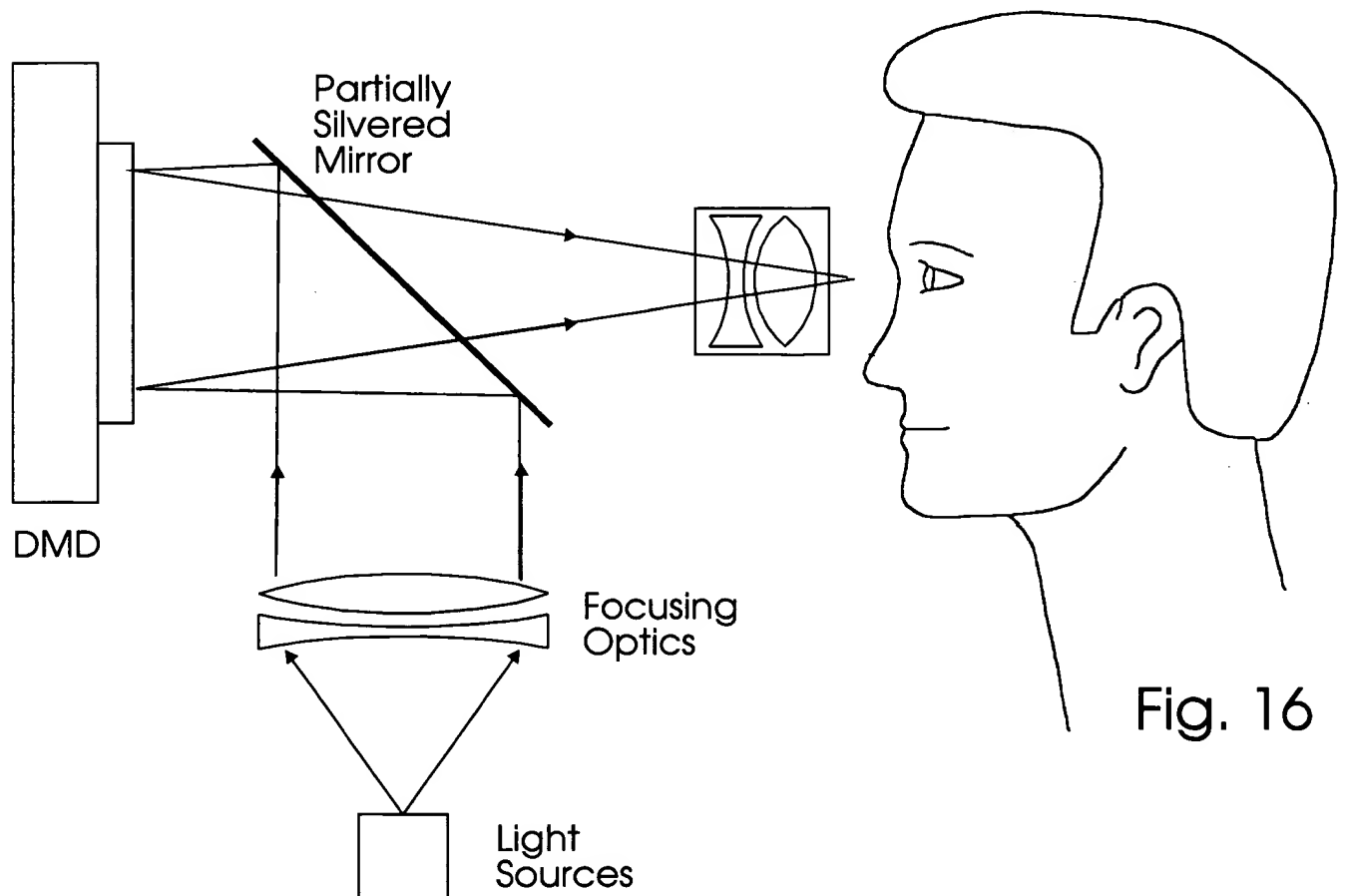
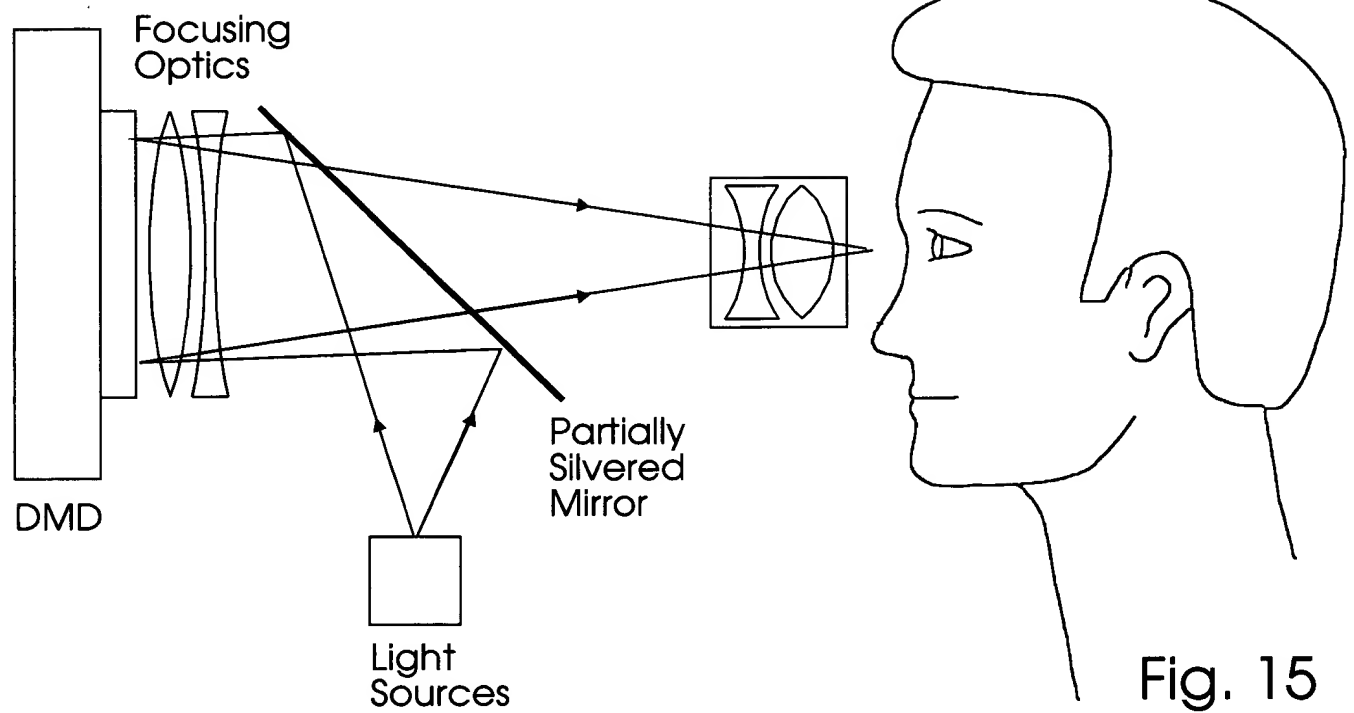


Fig. 14

Dual DMD lens system



2 stage dual mirror hybrid HMD

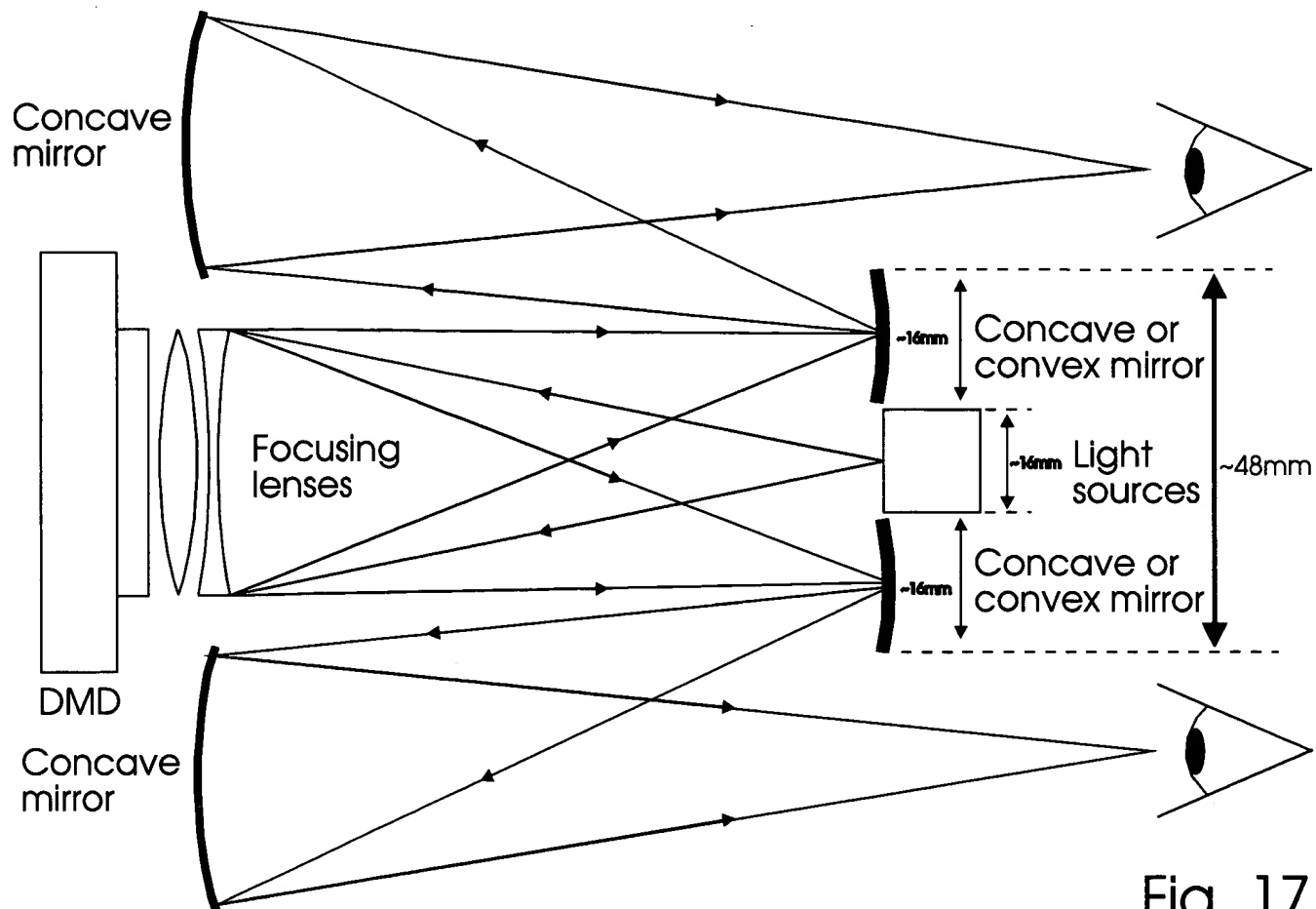


Fig. 17

Single DMD lens HMD

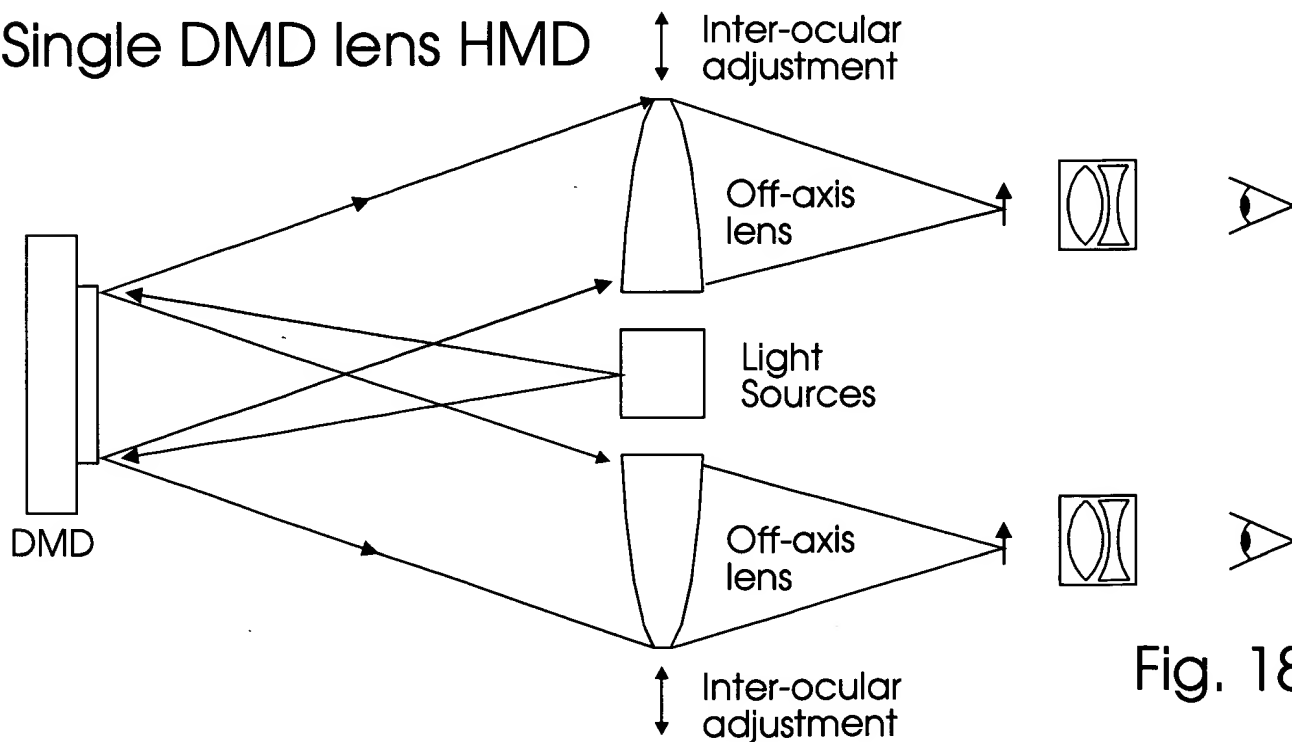


Fig. 18

Prismatic lens design

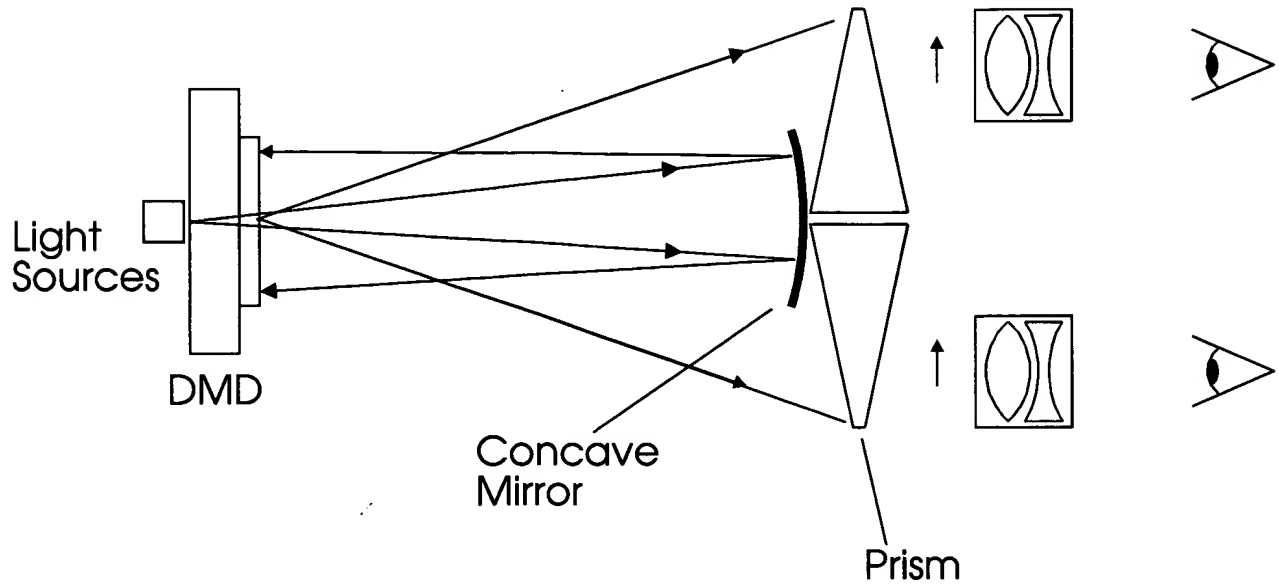


Fig. 19

Binocular lens design

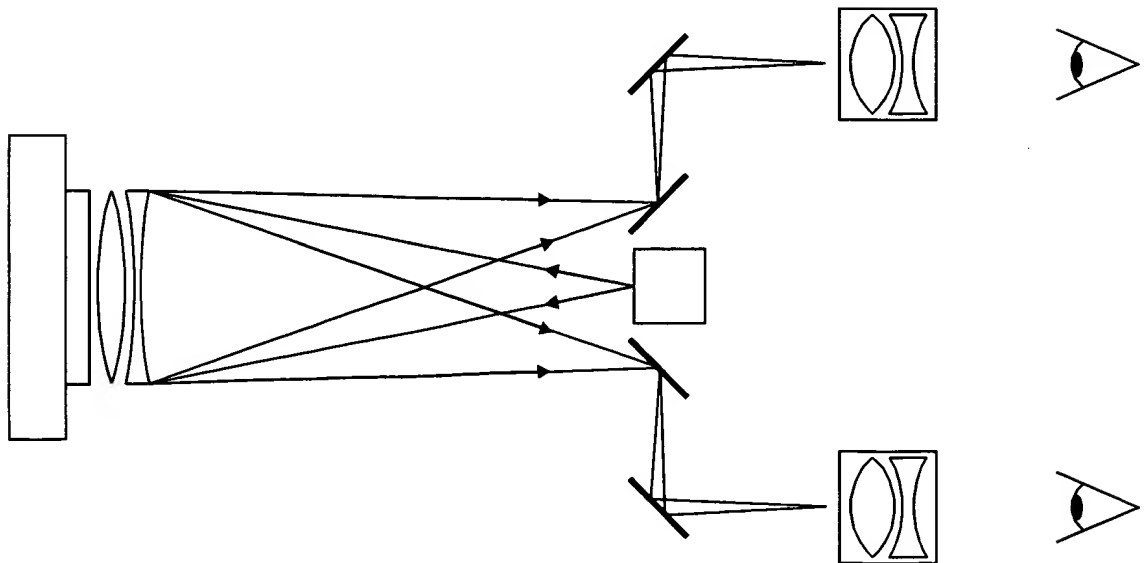


Fig. 20

Single stage hybrid lens system

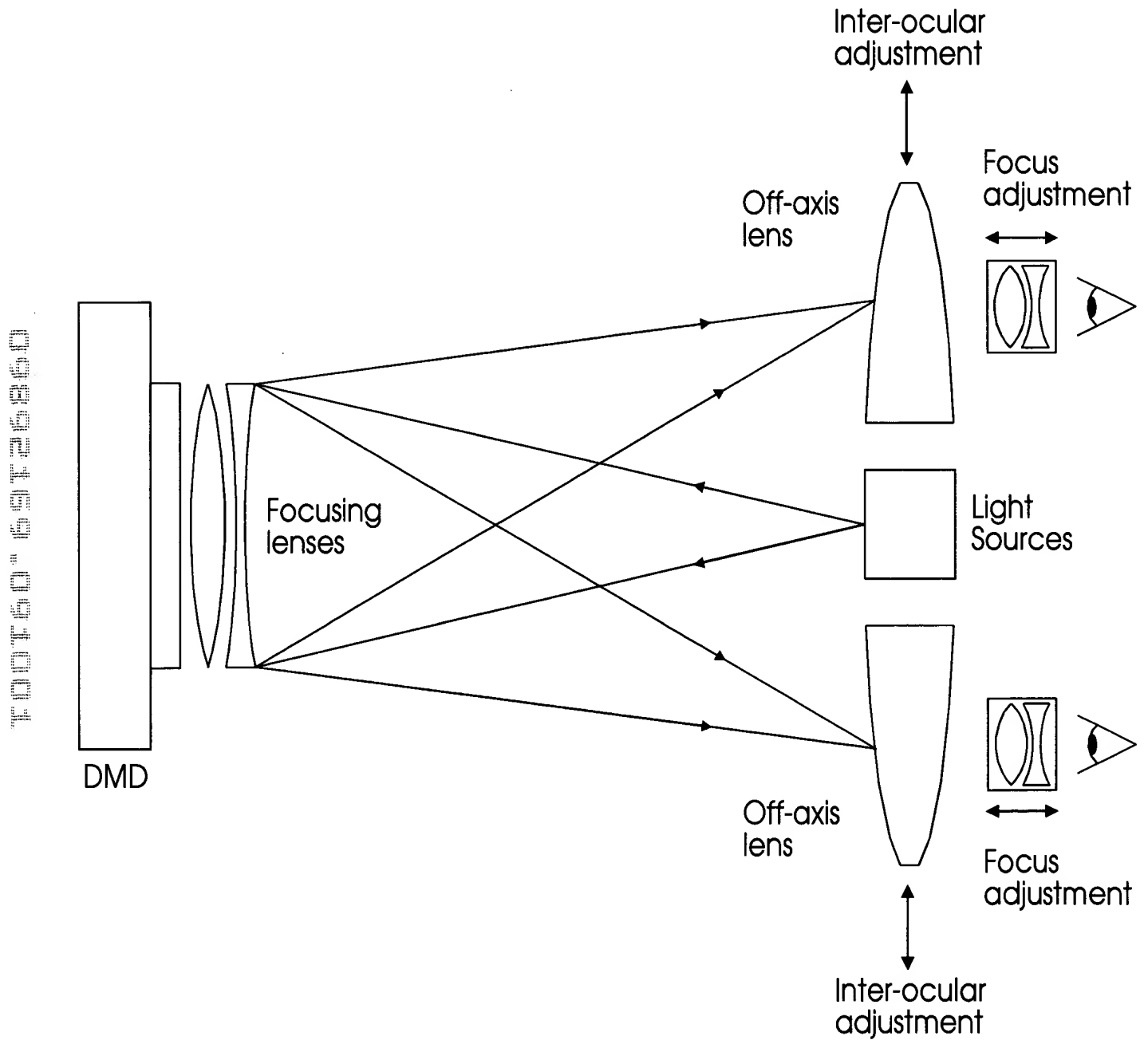


Fig. 21

2 stage hybrid lens system (preferred embodiment)

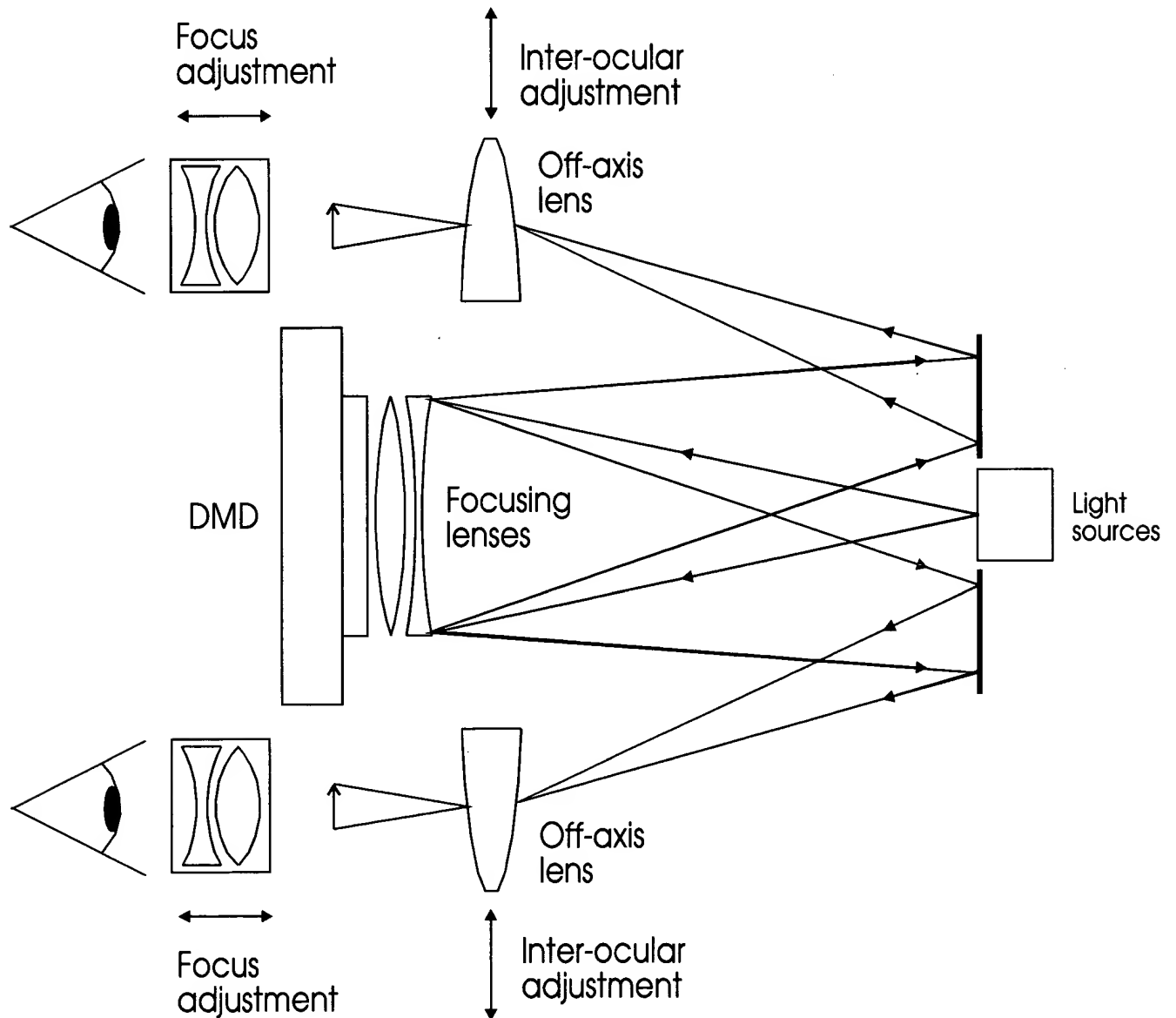
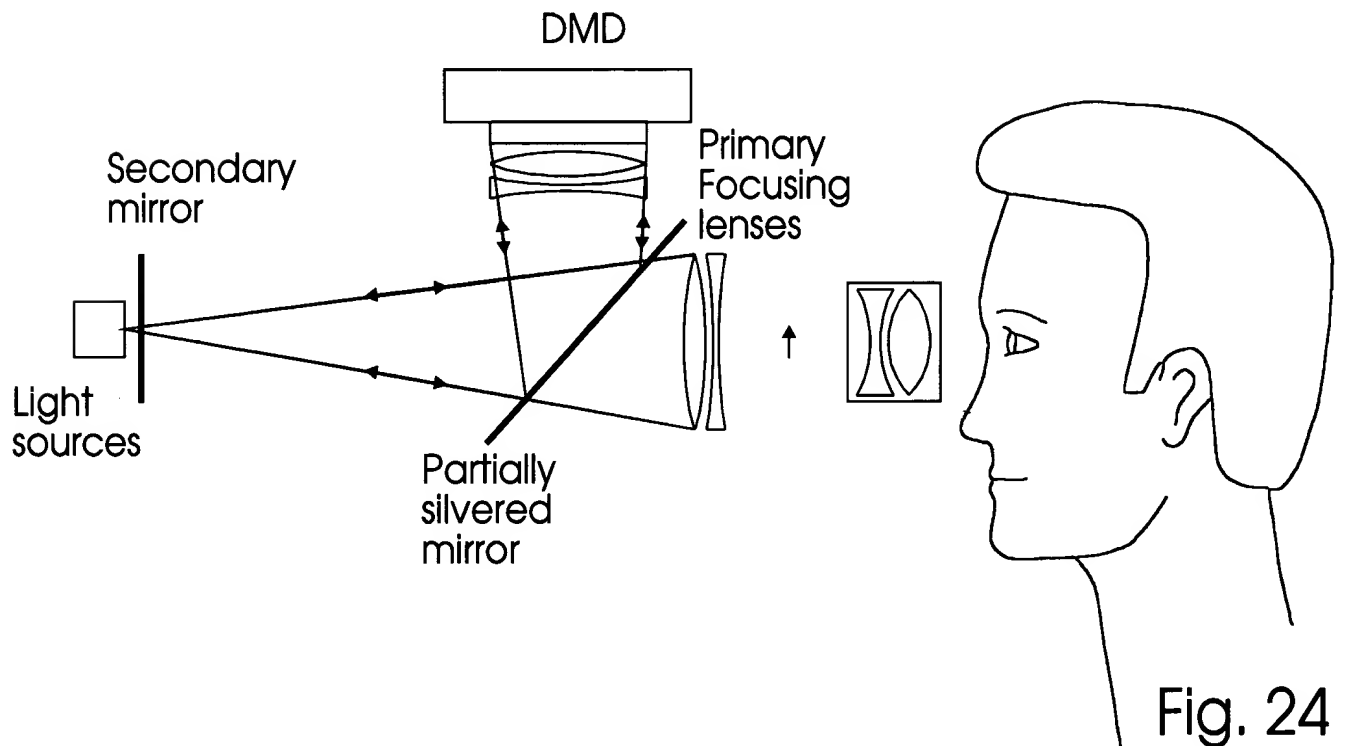
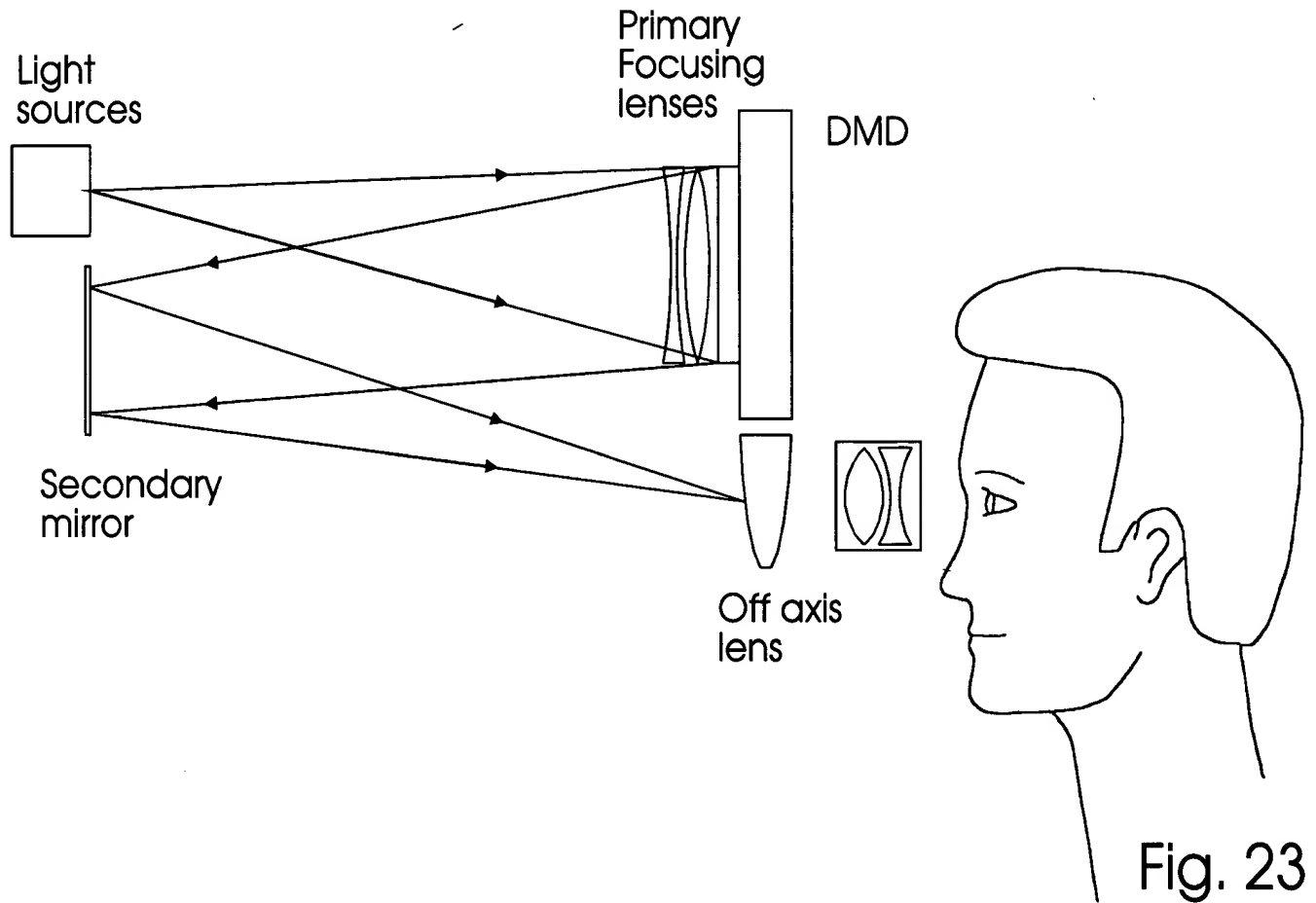
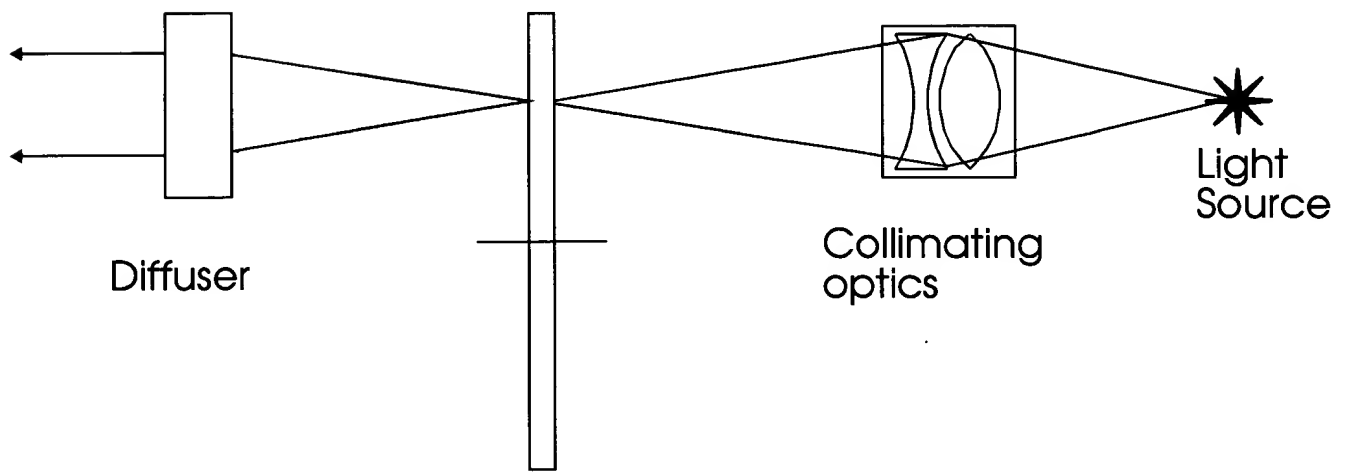
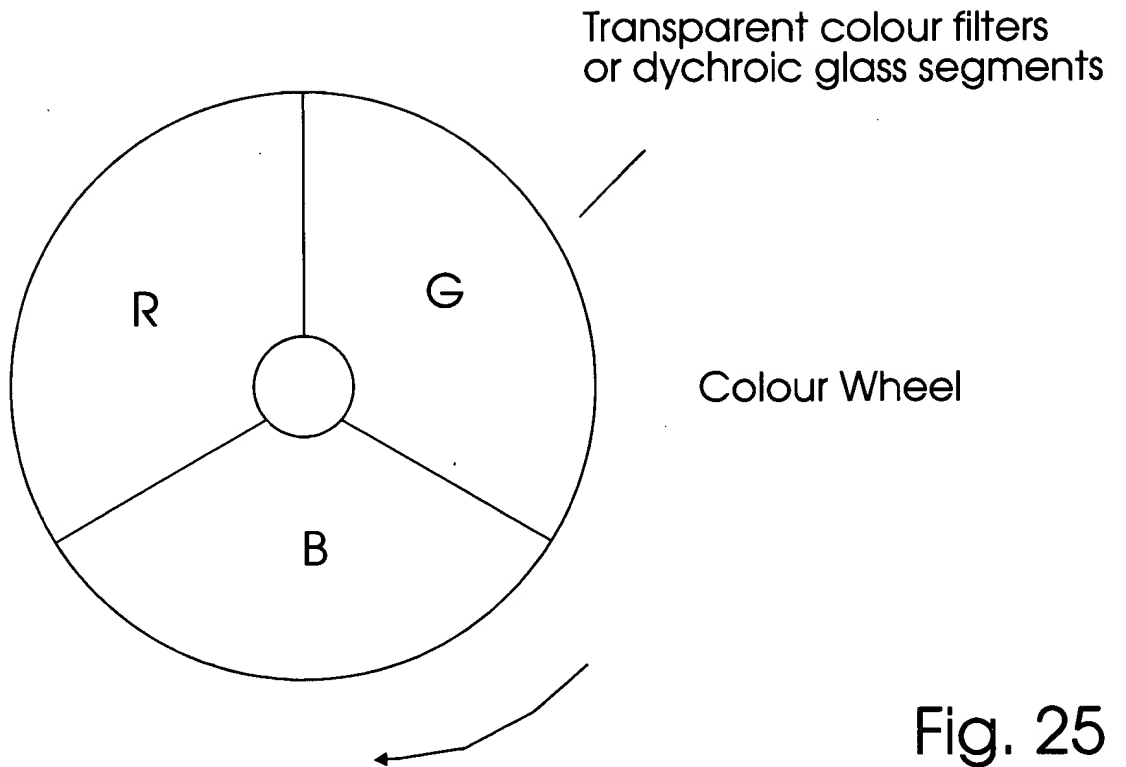


Fig. 22

Lens HMD enhancements



Light sources



Light sources

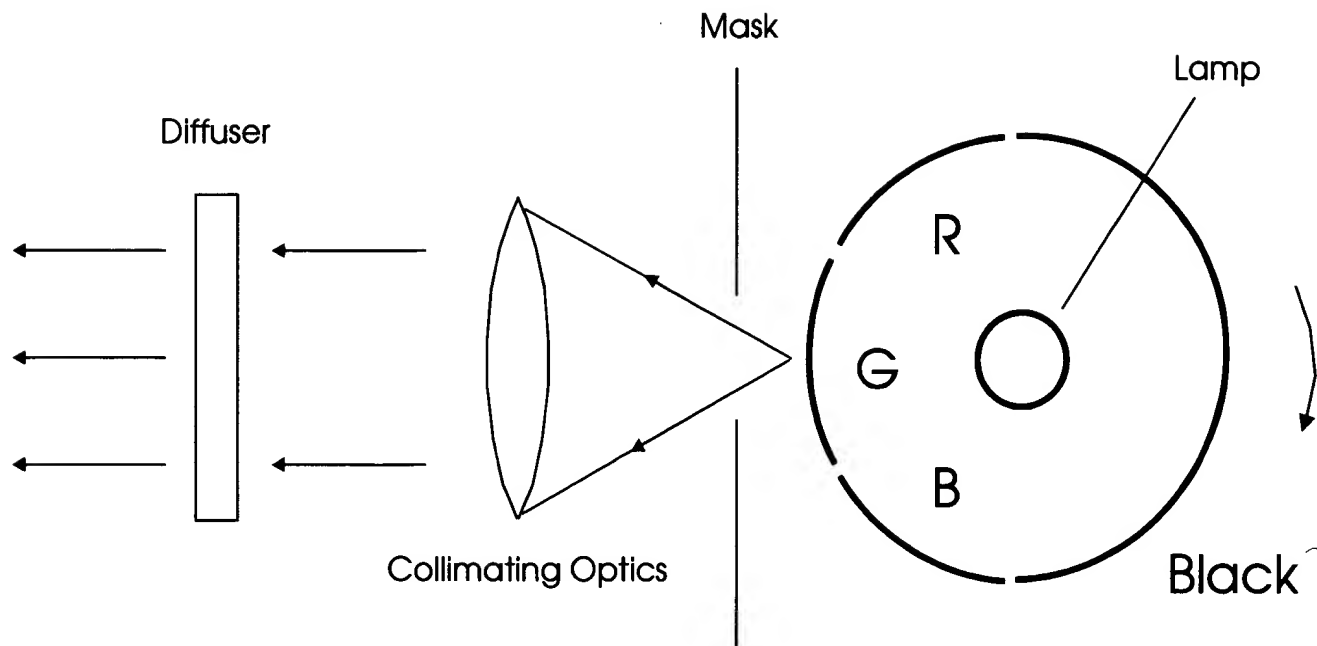


Fig. 27

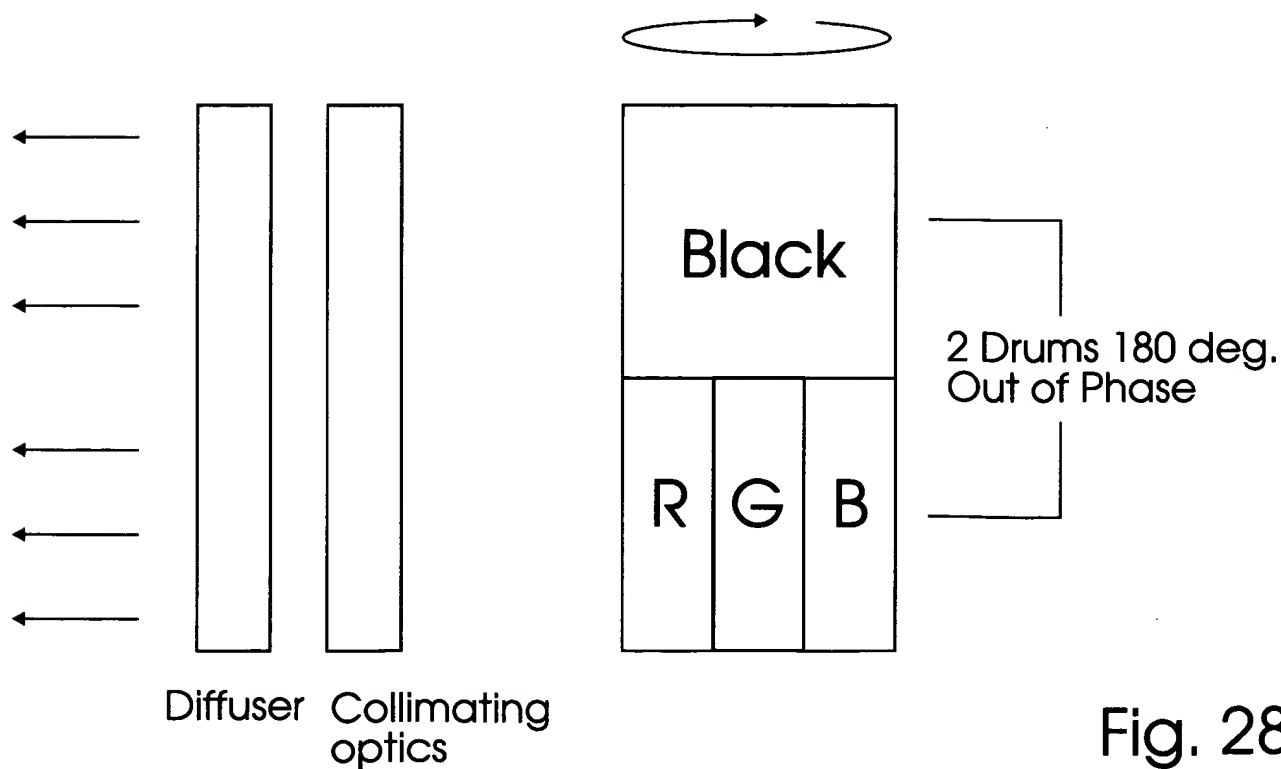


Fig. 28

Table 1. Demographic characteristics of the study population	
Age (years)	65.5 ± 1.2
Gender	
Male	50.0
Female	50.0
Education (years)	12.5 ± 1.0
Marital status	
Married	60.0
Single	40.0
Occupation	
Retired	70.0
Unemployed	30.0
Income (USD/month)	1,200 ± 200
Health status	
Good	60.0
Fair	40.0
Poor	0.0
Comorbidities	
Hypertension	30.0
Diabetes	20.0
Cholesterol	10.0
Smoking status	
Smoker	10.0
Non-smoker	90.0
Alcohol consumption	
Drinker	5.0
Non-drinker	95.0
Medication use	
Yes	40.0
No	60.0
Family size	3.5 ± 0.5
Living alone	10.0
Living with family	90.0
Transportation	
Own car	5.0
Public transport	95.0
Walking	0.0
Wheelchair	0.0
Assistance	
Yes	5.0
No	95.0
Health insurance	
Yes	90.0
No	10.0
Healthcare access	
Close to hospital	60.0
Far from hospital	40.0
Healthcare quality	
Good	70.0
Fair	30.0
Poor	0.0
Healthcare cost	
Low	60.0
High	40.0
Healthcare satisfaction	
Satisfied	70.0
Dissatisfied	30.0
Healthcare utilization	
Regular	60.0
Irregular	40.0
Healthcare access barrier	
Yes	10.0
No	90.0
Healthcare access facilitator	
Yes	5.0
No	95.0
Healthcare access barrier/facilitator	
Yes	15.0
No	85.0
Healthcare access barrier/facilitator	
Yes	10.0
No	90.0
Healthcare access barrier/facilitator	
Yes	5.0
No	95.0
Healthcare access barrier/facilitator	
Yes	10.0
No	90.0
Healthcare access barrier/facilitator	
Yes	5.0
No	95.0
Healthcare access barrier/facilitator	
Yes	10.0
No	90.0
Healthcare access barrier/facilitator	
Yes	5.0
No	95.0
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Yes	10.0
No	90.0
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Yes	5.0
No	95.0
Healthcare access barrier/facilitator	
Yes	10.0
No	90.0
Healthcare access barrier/facilitator	
Yes	5.0



Fig. 29



Fig. 30

Light sources

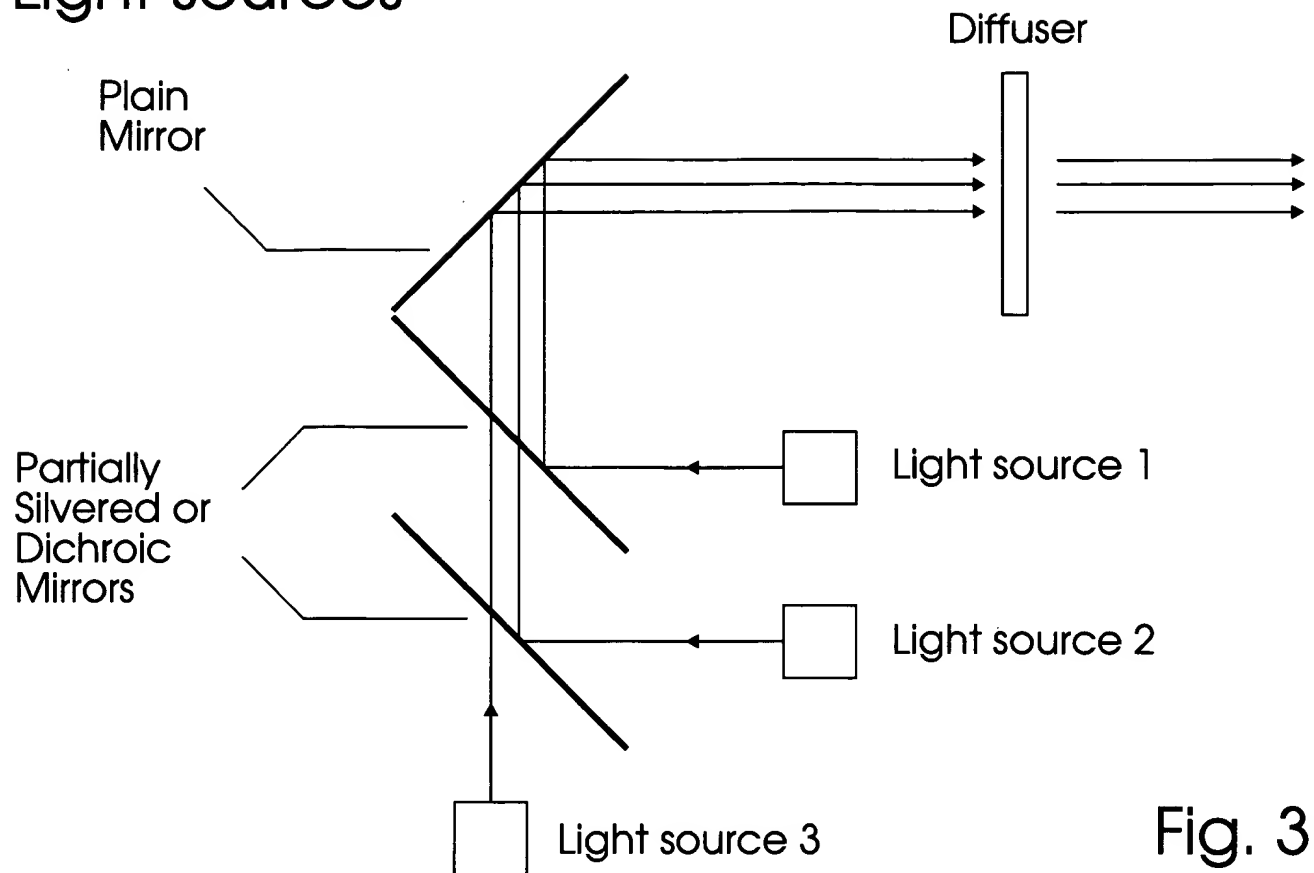


Fig. 31

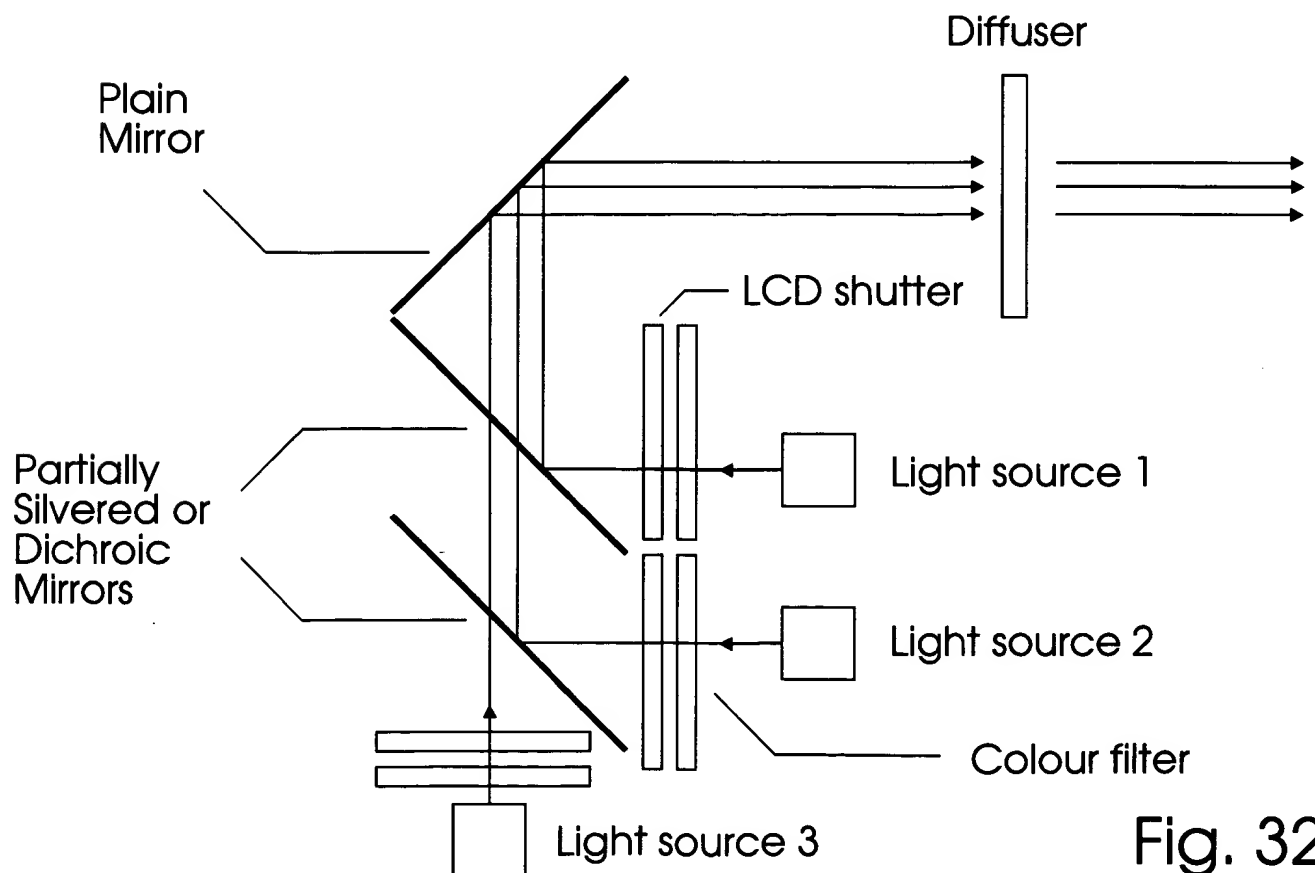
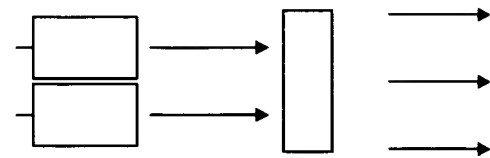
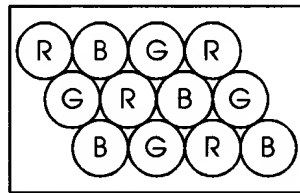


Fig. 32

Light Sources

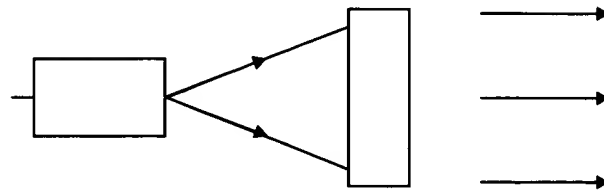
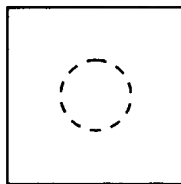
LED Array-1 (Monochrome LEDs)



LED array Diffuser

Fig. 33

LED Array - 2 (Full Spectrum LEDs)



Full spectrum
LED

Diffuser

Fig. 34

Optical enhancements

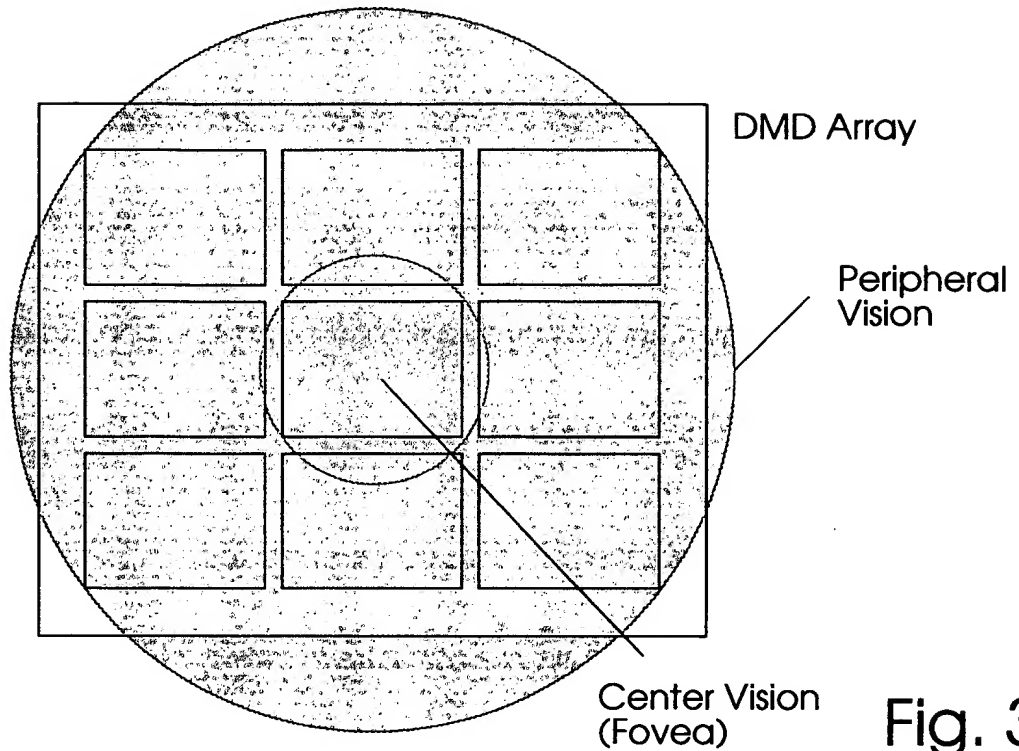


Fig. 35

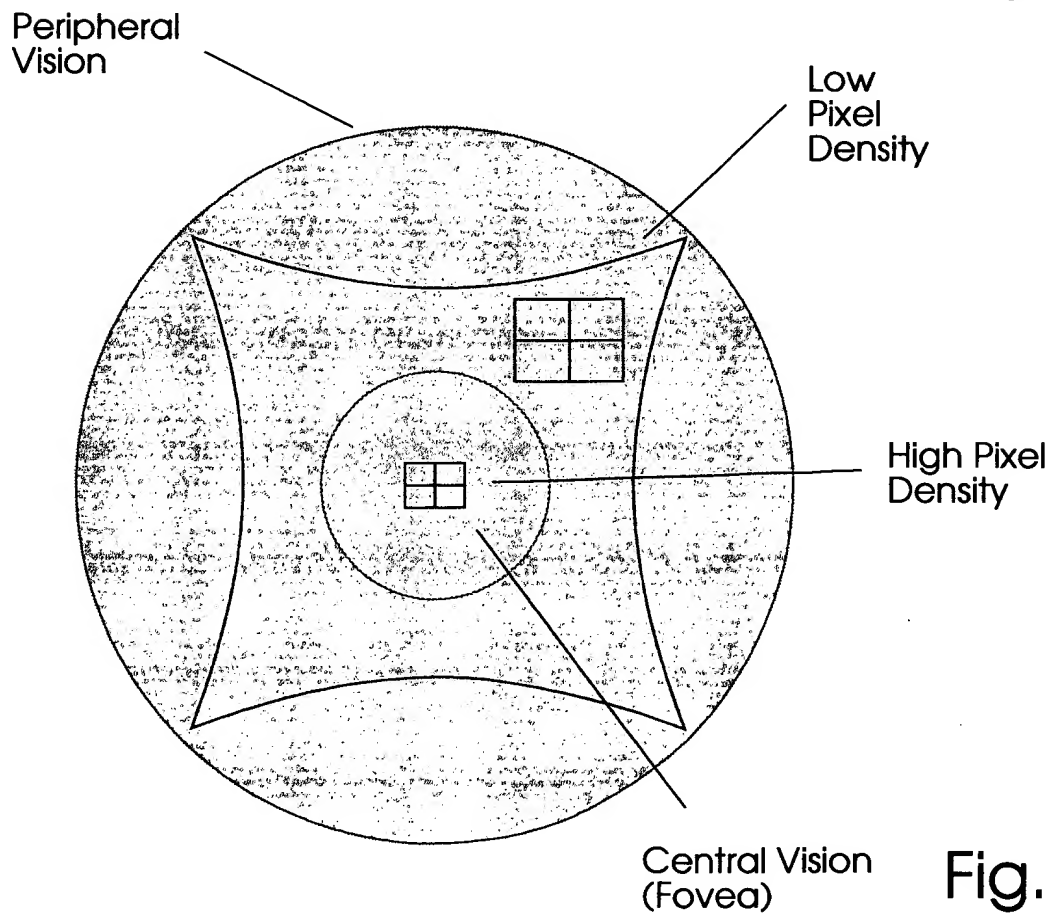


Fig. 36

Colour space comparison

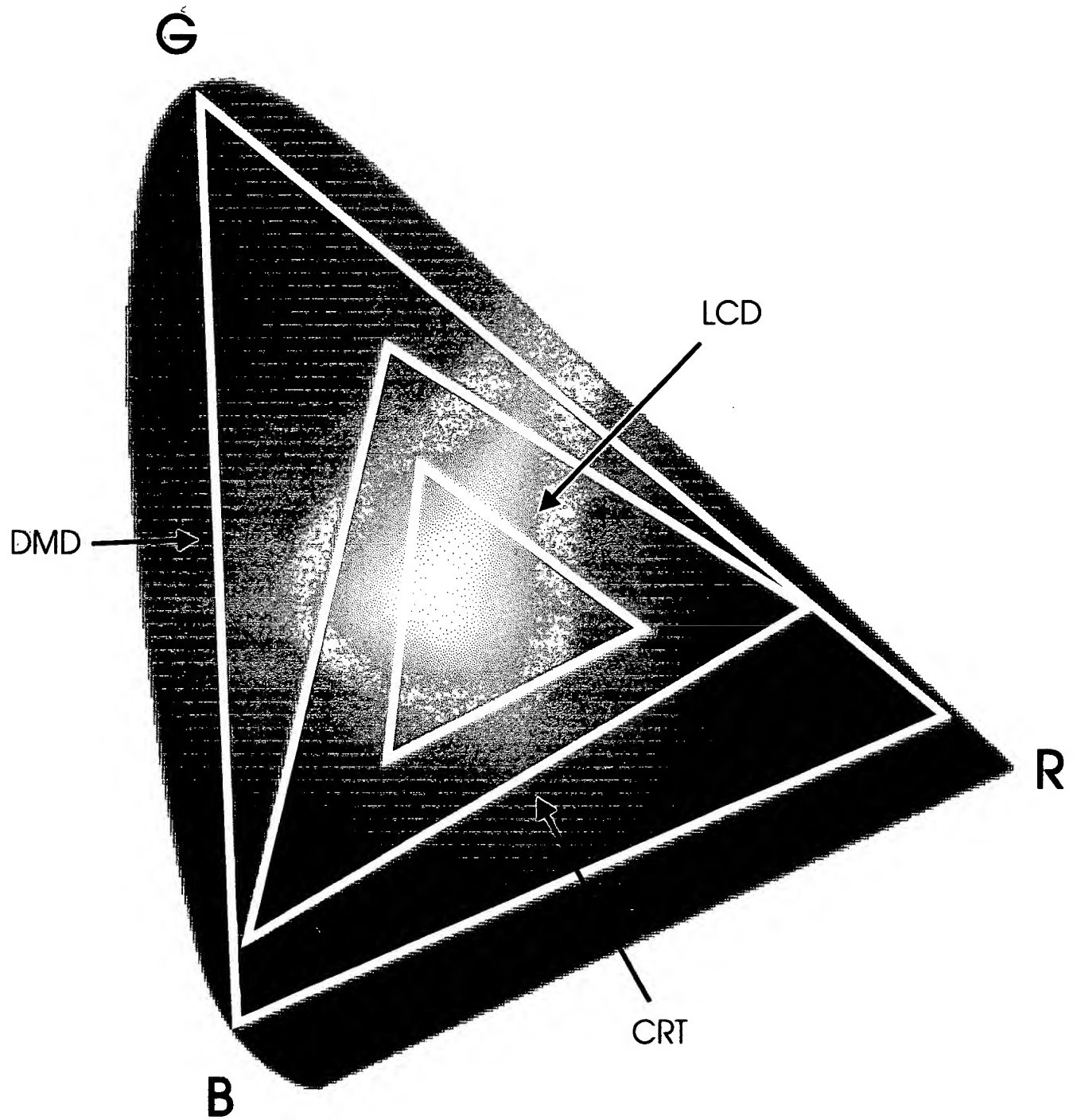


Fig. 37